

What is claimed is:

1. A lobe-less cam for use in a springless poppet valve system comprising:

a cam shaft having at least one surrounding region;
at least one asymmetrical cam groove formed in said at least one surrounding region; and
wherein said at least one asymmetrical cam groove has a lift portion and a descent portion.

2. A springless poppet valve system comprising:

a poppet valve movable between an open position and a closed position; and
a lobe-less cam having at least one asymmetrical cam groove, wherein said at least one asymmetrical cam groove accommodates a cam follower disposed to engage said lobe-less cam in said at least one asymmetrical cam groove and being operatively engaged to said poppet valve so as to move the valve from said closed position to said open position when a lift portion of said at least one asymmetrical cam groove engages said cam follower.

3. A springless poppet valve system comprising:

a poppet valve movable between an open position and a closed position;

a lobe-less cam having at least one asymmetrical cam groove, wherein said at least one asymmetrical cam groove accommodates a cam follower disposed to engage said lobe-less cam in said at least one asymmetrical cam groove and being operatively engaged to a rocker arm assembly; and

wherein said poppet valve moves from said closed position to said open position when a lift portion of said at least one asymmetrical cam groove engages said cam follower, said cam follower operatively engaging said rocker arm assembly.